AMENDED CLAIMS

[received by the International Bureau on 06 March 2003 (06.03.03);
original claims 1-23 replaced by new claims 1-22 (3 pages)]

Claims

1. Mobile electronic having a first audio component for providing a first continuous audio signal and a second audio component for providing a second audio signal, and an audio output for outputting an audio signal, said audio output being connected to said first and second audio components, and
a mixer, connected between said first and second audio component and said audio output for mixing said first and said second continuous audio signals to generate a mixed signal to be supplied to said audio output,
characterized in that
said first audio component comprises a radio receiver for providing a continuous audio data stream.

2. Mobile electronic device according to claim 1, wherein said first audio component further comprises an audio recorder.

3. Mobile electronic device according to claim 2, wherein said audio recorder comprises a component generating a signal indicative of the recording state of said audio recorder.

4. Mobile electronic device according to claim 3, characterized in that said mixer comprises a component to receive a signal indicative if one of said audio signals of said audio components is actually recorded or not, and a component for adjusting the ratio of amplitudes in accordance with said received signal.

5. Mobile electronic device according to anyone of the preceding claims, wherein at least one of said audio components comprises an input terminal for an external audio signal.

6. Mobile electronic device according to anyone of the preceding claims, further comprising a component for determining the amplitudes of said first audio signal and said second audio signals.

7. Mobile electronic device according to anyone of the preceding claims, wherein said mixer further comprises means for adjusting the ratio of amplitudes of said first and second audio signal in said mixed signal.

REPLACED BY ART 34 AMDT

8. Mobile electronic device according to anyone of the preceding claims, wherein one of said audio components comprises an audio player.

9. Mobile electronic device according to anyone of the preceding claims, wherein one of said audio components comprises a mobile phone.

10. Mobile electronic device according to anyone of the preceding claims, wherein one of said audio components comprises a component for coding/decoding audio signals.

11. Mobile electronic device according to anyone of the preceding claims, wherein said audio output comprises an audio connector for connecting headphones.

12. Method for mixing a first and a second audio signal with different priorities in a mobile device, said device comprising a radio receiver comprising:
- receiving a first audio signal via said radio receiver,
- receiving a second audio signal;
- mixing said first and said second audio signals according to a predetermined ratio of amplitudes; and
- providing said mixed signal for connection.

13. Method according to claim 12, further comprising recording at least one of said audio signals.

14. Method according to claim 12, further comprising generating a signal indicative of a proceeding recording operation.

15. Method according to anyone of claim 14, further comprising detecting a signal indicative of a proceeding recording operation, and mixing said first and second signals in accordance with said detected signal indicative of a proceeding recording operation.

16. Method according to anyone of claims 12 to 15, further comprising detecting a first and a second audio signal, prior to said step of mixing.

17. Method according to anyone of claims 12 to 16, further comprising determining the amplitudes of said first and second audio signal.

18. Method according to anyone of claims 12 to 17, further comprising decoding at least one of said first or second audio signals.

19. Method according to anyone of claims 12 to 18, further comprising coding at least one of said first or second audio signals.

20. Computer program tool for executing said method for mixing audio signals in a mobile electronic device, comprising program code means for carrying out the steps of anyone of claims 12 to 19 when said program is run on a computer or an electronic device.

21. Computer program comprising program code means stored on a computer readable medium for carrying out the method of anyone of claims 13 to 20 when said program product is run on a computer or an electronic device.

22. Computer program product comprising program code means stored on a computer readable medium for carrying out the method for mixing audio signals in a mobile electronic device of anyone of claims 13 to 20 when said program product is run on a computer or electronic device.

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Claims

1. Mobile electronic having a first audio component for providing a first continuous audio signal and a second audio component for providing a second audio signal, and an audio output for outputting an audio signal , said audio output being connected to said first and second audio components,
characterized by
a mixer, connected between said first and second audio component and said audio output for mixing said first and said second continuous audio signals to generate a mixed signal to be supplied to said audio output.

2. Mobile electronic device according to claim 1, further comprising a component for determining the amplitudes of said first audio signal and said second audio signal.

3. Mobile electronic device according to claim 1 or 2, wherein said mixer further comprises means for adjusting the ratio of amplitudes of said first and second audio signal in said mixed signal.

4. Mobile electronic device according to anyone of the preceding claims, wherein at least one of said audio components comprises an input terminal for an audio signal.

5. Mobile electronic device according to anyone of the preceding claims, wherein one of said audio components comprises a radio receiver.

6. Mobile electronic device according to anyone of the preceding claims, wherein one of said audio components comprises an audio player.

7. Mobile electronic device according to anyone of the preceding claims, wherein one of said audio components comprises an audio recorder.

8. Mobile electronic device according to claim 7, wherein said audio recorder comprises a component generating a signal indicative of the recording state of said audio recorder.

9. Mobile electronic device according to claim 8, characterized in that said mixer comprises a component to receive a signal indicative if one of said audio signals of said audio components is actually recorded or not, and a component for adjusting the ratio of

amplitudes in accordance with said received signal.

10. Mobile electronic device according to anyone of the preceding claims, wherein one of said audio components comprises a mobile phone.

11. Mobile electronic device according to anyone of the preceding claims, wherein one of said audio components comprises a component for coding/decoding audio signals.

12. Mobile electronic device according to anyone of the preceding claims, wherein said audio output comprises an audio connector for connecting headphones.

13. Method for mixing a first and a second audio signal with different priorities, comprising:
- receiving a first and a second audio signal;
- mixing said first and said second audio signal according to a predetermined ratio of amplitudes; and
- providing said mixed signal for connection.

14. Method according to claim 13, further comprising detecting a first and a second audio signal, prior to said step of mixing.

15. Method according to claim 13 or 14, further comprising determining the amplitudes of said first and second audio signal.

16. Method according to anyone of claims 13 to 15, further comprising decoding at least one of said first or second audio signals.

17. Method according to anyone of claims 13 to 16, further comprising coding at least one of said first or second audio signals.

18. Method according to anyone of claims 13 to 17, further comprising recording at least one of said audio signals.

19. Method according to claim 18, further comprising generating a signal indicative of a proceeding storing operation.

20. Method according to anyone of claims 13 to 19, further comprising detecting a signal indicative of a proceeding storing operation, and mixing said first and second signals in

accordance with said detected signal indicative of a proceeding storing operation.

21. Computer program tool for executing said method for mixing audio signals in a mobile electronic device, comprising program code means for carrying out the steps of anyone of claims 13 to 20 when said program is run on a computer or an electronic device.

22. Computer program comprising program code means stored on a computer readable medium for carrying out the method of anyone of claims 13 to 20 when said program product is run on a computer or an electronic device.

23. Computer program product comprising program code means stored on a computer readable medium for carrying out the method for mixing audio signals in a mobile electronic device of anyone of claims 13 to 20 when said program product is run on a computer or electronic device.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB 02/02173

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H04Q 7/32
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: H04Q, H04M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 0064129 A2 (SANYO ELECTRIC CO.,LTD.), 26 October 2000 (26.10.00), page 1 - page 9, claims 19-25, abstract --	1-6,10-17, 21-23
A	GB 2352136 A (SAGEM SA), 17 January 2001 (17.01.01), page 1 - page 2, abstract --	1-23
A	WO 9943136 A1 (ERICSSON, INC.), 26 August 1999 (26.08.99), page 1 - page 4, abstract -- --------	1-23

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
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"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
10 January 2003	14-01-2003
Name and mailing address of the ISA/ Swedish Patent Office Box 5055, S-102 42 STOCKHOLM Facsimile No. +46 8 666 02 86	Authorized officer Thomas Tholin/mj Telephone No. +46 8 782 25 00

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/IB 02/02173

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0064129 A2	26/10/00	AU 3675200 A	02/11/00
		CN 1351794 T	29/05/02
		EP 1171988 A	16/01/02
GB 2352136 A	17/01/01	DE 10032233 A	18/01/01
		FR 2799332 A	06/04/01
		FR 2799334 A	06/04/01
		GB 0016268 D	00/00/00
		FR 2799333 A	06/04/01
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		CN 1291400 T	11/04/01
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		EP 1057312 A	06/12/00
		IL 137817 D	00/00/00
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		NO 20004149 A	18/10/00